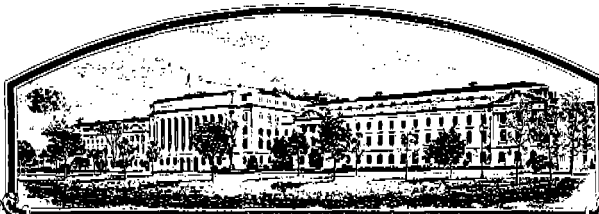


No.

8200082



# THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Royal Sluis, B.V.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE. IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (PLANT VARIETY PROTECTION ACT, 1930, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

MARIGOLD

'Calando Deep Orange'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington this 28th day of February in the year of our Lord one thousand nine hundred and eighty-three.

Attest:

*Kenneth H. Evans*

Acting  
Commissioner  
Plant Variety Protection Office  
Grain Division  
Agricultural Marketing Service

*John R. Block*

Secretary of Agriculture

# APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY		1b. VARIETY NAME <b>Calando Deep Orange</b>		FOR OFFICIAL USE ONLY PV NUMBER <b>8200082</b>	
2. KIND NAME <del>erecta</del> <b>MARIECLD</b> <i>R/S</i>		3. GENUS AND-SPECIES NAME <b>Tagetes ERECTA</b> <i>R/S</i>		FILING DATE <b>3/15/82</b>	TIME <b>8:30</b> A.M. <i>R.M.</i>
4. FAMILY NAME (BOTANICAL) <b>Compositae</b>		5. DATE OF DETERMINATION <b>September 1979</b>		FEE RECEIVED \$ <b>250.00</b> \$ <b>250.00</b> <b>250.00</b>	DATE <b>3/15/82</b> <b>3/15/82</b> <b>2/3/83</b>
6. NAME OF APPLICANT(S) <b>Royal Sluis B.V.</b>		7. ADDRESS (Street and No. or R.F.D. No. City, State, and ZIP Code) <b>Westeinde 161, P.O.Box 22 1600 AA Enkhuiseen, Holland</b>		8. TELEPHONE AREA CODE AND NUMBER	
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) <b>Corporation</b>			10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION <b>Netherlands</b>		11. DATE OF INCORPORATION
12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S). IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:					

## 13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☐ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Novelty Statement.
- ☐ 13C. Exhibit C, Objective Description of the Variety (Request form from Plant Variety Protection Office.)
- ☐ 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEE D? (See Section 83(a). (If "Yes," answer 14B and 14C below.)		c 1 YES <input checked="" type="checkbox"/> NO	
14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?		
cl YES <input type="checkbox"/> NO	<input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO (If "Yes," give name of countries and dates.)			

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? ☐ YES ☒ NO (If "Yes," give name of countries and dates.)

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? ☒ YES ☐ NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

(DATE)  
**March 4, 1982**  
*March 26, 1982*  
(DATE)

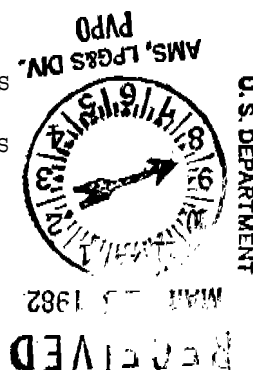
(SIGNATURE OF APPLICANT)  
*[Signature]*  
(SIGNATURE OF APPLICANT)

# INSTRUCTIONS

**GENERAL:** Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

## ITEM

- 5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- 13a Give: (1) the genealogy, including public and **commercial** varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of **uniformity** and stability.
- 13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.
- 13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.
- 13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- 14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety **has either** been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- 15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.



8200082

Application for P.V.P.

Tagetes Calando Deep Orange

Exhibit A Origin and breeding history.

Calando Deep Orange has been developed from crossings between the **F1** Hybrids Apollo and Deep Orange Lady.

Used techniques: single crosses, inbred techniques and single plant selection.

When propagated from seed the following variants occur:

singles	< 1%
semi doubles	+ 2%
taller types	< 1%

Calando Deep Orange appears stable and uniform after selfing and during the seed increase **programme**.

Item 4 correct **leafsize** of the separate leaves is length 3 cm  
width **0,6** cm.

Appendix to Exhibit A

Results production 1981

singles	<b>0,1%</b>
semi-doubles	<b>1,4%</b>
taller types	0,346

This. is typical for **an** open pollinated Marigold and for a stable uniform propagation.

This is commercially acceptable.



-2- Mr. Robert J. Snyder- Plant Var. Prot. Office

8200082  
ROYAL SLUIS

EXHIBIT B

8200082 Calando Deep Orange

IS MOST SIMILAR TO 'APOLLO' AND  
'DEEP ORANGE LADY' R/S 12/14/82

Height Calando Deep Orange	-	31 cm	S 0,6	N 40
Apollo	-	26 cm	S 0,6	N 80
Deep Orange Lady	-	35 cm	S 0,6	N 80

These data are based on different locations over two year.  
Apollo is always dwarfer, Deep Orange Lady always taller.

Dolly Orange

Height 20 cm S 0,6 N 40, extremely late flowering.

Lady Sunshine

Height 25 cm S 0,6 N 40, always dwarfer than Calando Deep Orange

Pot-O'Gold

Color - Golden Yellow

Not in our 1982 trials, discontinued in Old's catalogue 1982.

Sincerely,

ROYAL SLUIS



Henk S. Asma

Marketing Flower Seeds

HSA/MdV

1 Calando Deep Orange

FORM GR-470-9

(9-15-72)

UNITED STATES DEPARTMENT OF AGRICULTURE  
AGRICULTURAL MARKETING SERVICE

GRAIN DIVISION

HYATTSVILLE, MARYLAND 20782

EXHIBIT C  
(Marigold)

OBJECTIVE DESCRIPTION OF VARIETY  
MARIGOLD (TAGETE)

INSTRUCTIONS - See Reverse.

NAME OF APPLICANT(S)  
Royal Sluis B.V.

ADDRESS (Street and No., or R.F.D. No.; City, State, and ZIP Code)

Westeinde 161, P.O. Box 22  
1600 AA ENKHUIZEN, Holland

FOR OFFICIAL USE ONLY

PVPO NUMBER

8200082

VARIETY NAME OR TEMPORARY  
DESIGNATION

CALANDO DEEP ORANGE

Place the appropriate number that describes the varietal character of this variety in the boxes below.

Place a zero in first box (e.g. [0][8][9] or [0][8]) when number is either 99 or less or 9 or less.

1. SPECIES TYPE:

[1] 1 = ERECTA (African) 2 = PATULA (French) 3 = TENUIFOLIA (Signata) 4 = LUCIDA (Sweet)  
5 = OTH ER (Specify) \_\_\_\_\_

2. PLOIDY:

[1] 1 = DIPLOID (n = \_\_\_\_\_) 2 = TRIPLOID (n = \_\_\_\_\_) 3 = TETRAPLOID (n = \_\_\_\_\_)

3. PLANT TYPE/HABIT:

c 1 1 = EXTRA DWARF (Miniature, petite) < 20 CM. 2 = DWARF 25-35 CM. 3 = SEMIDWARF 40-55 CM. 4 = TALL > 60 CM.

c 1 1 = ERECT 2 = SEMIERECT 3 = DECUMBENT

c 1 1 = COMPACT 2 = LAX

[1] Flowering: 1 = LONG SEASON 2 = SHORT SEASON

4. LEAF (Middle of first flowering branch):

[2] Type: 1 = SIMPLE 2 = COMPOUND

[3] Leaflet: 1 = OVATE 2 = LANCEOLATE 3 = ELLIPTIC 4 = FILIFORM

c 1 4 Margin: 1 = ENTIRE 2 = CRENATE 3 = SERRATE 4 = DENTATE 5 = INCISED

[0][0][3] CM. LONG [0][6] MM. WIDE c 2 1 Ah nt ocyanin pigment in petioles: 1 = ABSENT 2 = PRESENT

[1] Glands: 1 = PUNCTATE 2 = LARGE DOTS c 1 Glands: 1 = BASAL 2 = APICAL

a 1 Odor: 1 = NONE 2 = MILD FRAGRANCE 3 = STRONG FRAGRANCE 4 = MILD "MARIGOLD" 5 = STRONG "MARIGOLD"

5. STEM:

a 1 1 = STRAIGHT 2 = ZIGZAG c 1 1 1 = BRITTLE 2 = FLEXIBLE

[1] Anthocyanin: 1 = ABSENT 2 = ALONG VEINS ONLY 3 = SOLID COLORATION

[2][0] CM. FROM BASE OF MAIN STEM TO AXIL OF TOP BRANCH

[3][0] CM. FROM BASE OF STEM TO INVOLUCRE OF TERMINAL FLOWER

[1][8] CM. FROM AXIL OF TOP BRANCH TO INVOLUCRE OF TERMINAL FLOWER

[0][1] NO. OF INTERNODES BELOW FIRST BRANCH

[1][6] NO. OF FIRST ORDER BRANCHES (from main stem)

4. FLOWER:

[1] Type: 1 = CARNATION 2 = CHRYSANTHEMUM 3 = OTHER \_\_\_\_\_

a 1 1 = SINGLES 2 = DOUBLES

c 1 3 Silhouette: 1 = FLATTENED 2 = ROSETTE 3 = GLOBULAR

c 1 1 Odor: 1 = NONE 2 = MILD FRAGRANCE 3 = STRONG FRAGRANCE 4 = MILD "MARIGOLD" 5 = STRONG "MARIGOLD"

Marigold Application 8200082 "Calando Deep Orange"

Appendix to Exhibit B

Height Calando Deep Orange

31 cm            ± 2 cm            (S = 0,6            N = 40)

Height Apollo

27 cm            ± 2 cm            (S = 0,5            N = 40)

Height Deep Orange Lady

33 cm            ± 1 cm            (S = 0,5            N = 40)

Appendix to Exhibit C

Ploidy of Tagetes **erecta** id diploid

Literature:

Tagetes erecta L. 2N = 24 diploid

Tagetes patula L. 2N = 48 tetraploid

Publications:

- Les Tagetes

Origine et **principales caractéristiques** botaniques et **cytogénétiques**.

J. liege, professeur, directeur des Conservatoire et **Jardin** botaniques de **Genève**.

- Genetisch - züchterische Untersuchungen **bei** Tagetes.

G. **Bolz** 1961 - Institut **für** Gärtnerische **Pflanzenzüchtung** der Technische Hochschule **Hannover**.

- Genetic Study in the Genus Tagetes.


Eyster W.H. 1939 - Proceedings of the 7th Int, **Genetica** Congress 117 - 119.



## 6. FLOWER: (Continued)

1 Ray: 1 = FLATTENED 2 = CURLED/TWISTED (*Fantastic*)

2 Apices: 1 = ENTIRE 2 = LOBED 3 = NOTCHED

1 SURFACE • Dorsal: } 1 = GLABROUS 2 = PUBESCENT 3 =  ON APICE ONLY

1 SURFACE • Ventral: }

2 LUSTER • Dorsal: } 1 = SHINY 2 = DULL

1 LUSTER • Ventral: }

1 PATTERN • Dorsal: } 1 = SOLID 2 = SPOTTED 3 = STRIPED

1 PATTERN • Ventral: } 4 = PICOTEE 5 = OTHER (Specify) \_\_\_\_\_

1 Color: 1 = SOLID 2 = BICOLOR (Specify colors): Primary 24A Secondary 23A  
State color standards used: RHS c c

SIZE (Use outer row of first matured flower): 3 5 MM. LONG 1 5 MM. WIDE

2 Disc: 1 = ABSENT 2 = PRESENT, COVERED 3 = PRESENT, UNCOVERED

1 Type: 1 = NOT QUILLED 2 = QUILLED

0 DISEASE RESISTANCE (0 = Not Tested; 1 = Susceptible; 2 = Resistant)

ROOT-ROT (*Phytophthora*) a 0 VIRUS YELLOWS

0 GREY MOLD (*Botrytis*) 0 FUSARIUM WILT

0 STEM ROT (*Sclerotinia*) 0 WITCHES BROOM

## 8. INDICATE A VARIETY THAT MOST NEARLY RESEMBLE THAT SUBMITTED

CHARACTER	VARIETY	CHARACTER	VARIETY
Plant shape	<u>F1 Apollo</u>	Flower size	<u>F1 Orange Lady</u>
Plant size	<u>F1 Apollo</u>	Flower shape	<u>F1 Apollo</u>
Foliage	<u>F1 Orange Lady</u>	Flower color	<u>F1 Deep Orange Lady</u>

## INSTRUCTIONS

REFERENCES: The following publications may be used as a reference aid for completing this form:

- (a) Bailey, L. H., 1747, Manual of **Cultivated** Plants, MacMillan.
- (b) Royal Horticulture Society, 1965, Dictionary of Gardening, Oxford.
- (c) Wyman, Donald, 1971, Wyman's Gardening Encyclopedia, MacMillan.

COLOR: Nickerson's or any recognized color fan may be used to determine the colors.